

The mineral particles increased in size and number as the American continent was approached, where they consisted of fragments of quartz, monoclinic and triclinic felspars, hornblende, augite, magnetite, mica, and glauconite. An ideal section, with depths and percentages of carbonate of lime, is given in Diagram 2. On the 7th May a large block of syenite weighing 490 lbs. (222 kilogrammes), which had become jammed between the arms of the dredge, was brought up from 1340 fathoms. In this and the other dredgings within the influence of the Labrador current, over 100 miles from the shore, many stones were dredged, most of them being rounded pebbles or large grains with rounded angles; nearly two-thirds of the smaller fragments were milky quartz, whilst the larger fragments were quartzite, compact limestone, dolomite, mica-schist, and serpentine rocks, some of them with glacial striations. These deposits along the American coast were Blue Muds with a reddish surface layer, in which quartz and fragments of ancient rocks were abundant, making up from 40 to 70 per cent. of the deposits in 1240, 1350, and 1340 fathoms, while these minerals were not detected in the deposits around Bermuda.

*Halifax to Bermuda.*—The deposits from Halifax southwards to Bermuda (see Chart 9) were Blue Muds containing from 16 to 32 per cent. of carbonate of lime. The larger pelagic Foraminifera and Rhabdoliths became more abundant as Bermuda was approached, while the siliceous organisms became fewer. The mineral particles were of the same nature as those in the deposits in the previous section, being larger and more abundant in the more northern stations which are under the influence of the Labrador current.

*Bermuda to the Azores.*—With the exception of the deposit from Station 67, 2700 fathoms, which contained 54 per cent. of carbonate of lime, all the deposits in the section between Bermuda and the Azores (see Chart 6) from depths greater than 2400 fathoms contained less, and all from depths less than 2400 fathoms contained more, than 50 per cent. of carbonate of lime. In the greatest depths, 2850 and 2875 fathoms, there were only 8 and 10 per cent. The highest percentage of carbonate of lime was 83.31 in 1675 fathoms. In the greater depths the carbonate of lime consisted chiefly of fragments of pelagic Foraminifera and Coccoliths; in depths less than 1600 fathoms, the shells of pelagic Molluscs and fragments of Echinoderms were more or less abundant, and along with pelagic and other Foraminifera made up the principal part of the carbonate of lime in the deposits. Radiolaria and Sponge spicules never made up more than 1 or 2 per cent. of the deposit.

In the deep water immediately to the south of the banks of Newfoundland, there were fragments of quartz, monoclinic and triclinic felspars, and fragments of mica-schist and other ancient continental rocks. These were believed to be ice-borne fragments, although apparently south of the southern limit of the ice region in the North Atlantic as shown on the charts. On approaching the Azores these fragments disappeared more or less completely from the bottom, and the mineral particles then consisted almost